

WHAT IS CLAIMED IS:

1. A system for controlling an exterior television antenna comprising:
an amplifier circuit mounted on a building exterior with said exterior television antenna and connected to said television antenna; and
a control line extending into an interior of said building, said control line being connected to said amplifier circuit for controlling a gain of said amplifier circuit.
2. The system of claim 1, wherein said control line is connected to a television which outputs a control signal on said control line to control said amplifier circuit.
3. The system of claim 2, wherein said television outputs said control signal based on a channel being tuned by said television.
4. The system of claim 1, wherein said control line is connected to a control unit that is connected to a television and outputs a control signal on said control line to control said amplifier circuit.
5. The system of claim 4, wherein said control unit outputs said control signal based on a channel being tuned by said television.
6. The system of claim 1, wherein said control line also provides power for said amplifier circuit.
7. The system of claim 6, wherein said control line carries a control signal which is a direct current (DC) voltage signal comprising a voltage to power said amplifier circuit plus an additional voltage that varies to indicate a desired gain of said amplifier circuit.

8. The system of claim 1, further comprising a signal line connected to said amplifier circuit for transmitting an amplified signal from said antenna to a receiving device in said building;

wherein said control line is sheathed with said signal line.

9. The system of claim 1, wherein said amplifier circuit comprises a voltage controlled amplifier, wherein said amplifier receives power and a voltage controlling a gain of said amplifier over said control line.

10. The system of claim 1, wherein said amplifier circuit comprises:
an attenuator connected to and controlled by said control line; and
an amplifier,

wherein said attenuator selectively attenuates a signal from said antenna before providing that signal to said amplifier.

11. The system of claim 10, wherein said attenuator is voltage controlled.

12. The system of claim 11, wherein said control line also provides power for said amplifier circuit.

13. The system of claim 1, wherein:
said exterior television antenna comprises two or more antenna elements differently oriented;
said amplifier circuit further comprising a controller connected to said control line and an amplifier; and
said controller selectively provides signals from said antenna elements to said amplifier in response to a control signal on said control line to adjust a polarity of said antenna.

14. The system of claim 13, wherein said controller also selectively attenuates signals from said antenna elements based on said control signal to adjust an effective gain of said amplifier.

15. The system of claim 1, wherein:

 said exterior television antenna comprises two or more antenna elements differently oriented;

 said amplifier circuit further comprises two or more amplifiers connected to respective antenna elements; and

 said control line provides independent control signals to said amplifiers to selectively adjust a gain of each of said amplifiers to adjust a polarity of said antenna.

16. The system of claim 15, wherein said amplifier circuit further comprises a summer for combining signals from said two or more amplifiers.

17. The system of claim 1, further comprising a motor for selectively rotating said antenna.

18. A method for controlling an exterior television antenna comprising:
 selectively amplifying a signal from said television antenna with an amplifier circuit mounted on a building exterior with said exterior television antenna; and
 a control line extending into an interior of said building, said control line being connected to said amplifier circuit for controlling a gain of said amplifier circuit.

19. The method of claim 18, further comprising:
 generating a control signal with a television to which said control line is connected; and
 outputting said control signal on said control line to control said amplifier circuit.

20. The method of claim 19, further comprising generating said control signal based on a channel being tuned by said television.

21. The method of claim 18, further comprising:
generating a control signal with a control unit to which said control line is connected,
said control unit being connected to a television; and
outputting said control signal on said control line to control said amplifier circuit.

22. The method of claim 21, wherein said control signal is based on a channel
being tuned by said television.

23. The method of claim 18, further comprising providing power for said amplifier
circuit over said control line.

24. The method of claim 23, wherein said control line carries a control signal
which is a direct current (DC) voltage signal comprising a voltage to power said amplifier
circuit plus an additional voltage that varies to indicate a desired gain of said amplifier circuit.

25. The method of claim 18, further comprising:
transmitting an amplified signal from said antenna to a receiving device in said
building over a signal line connected to said amplifier circuit; and
sheathing said control line with said signal line.

26. The method of claim 18, wherein said amplifier circuit comprises a voltage
controlled amplifier, said method further comprising providing power and a voltage
controlling a gain of said amplifier over said control line.

27. The method of claim 18, further comprising selectively attenuating a signal
from said antenna before providing that signal to an amplifier of said amplifier circuit to
control an effective gain of said amplifier.

28. The method of claim 27, wherein said attenuating is performed with a voltage-
controlled attenuator controlled via said control line.

29. The method of claim 28, further comprising providing power for said amplifier circuit over said control line.

30. The method of claim 18, wherein:

said exterior television antenna comprises two or more antenna elements differently oriented; and

said method further comprising selectively providing signals from said antenna elements to an amplifier of said amplifier circuit in response to a control signal on said control line to adjust a polarity of said antenna.

31. The method of claim 30, further comprising selectively attenuating signals from said antenna elements based on said control signal to adjust an effective gain of said amplifier.

32. The method of claim 18, wherein:

said exterior television antenna comprises two or more antenna elements differently oriented;

said amplifier circuit further comprises two or more amplifiers connected to respective antenna elements; and

said method further comprising independently controlling said amplifiers to selectively adjust a gain of each of said amplifiers to adjust a polarity of said antenna.

33. The method of claim 18, further comprising selectively rotating said antenna.

34. A system for controlling an exterior television antenna comprising:

amplifying means for selectively amplifying a signal from said television antenna, said amplifying means being mounted on a building exterior with said exterior television antenna; and

control means for controlling a gain of said amplifying means, said control means comprising a receiving device inside said building.

35. The system of claim 34, wherein said receiving device comprises a television that generates a control signal for said amplifying means.

36. The system of claim 35, wherein said control signal is based on a channel being tuned by said television.

37. The system of claim 34, wherein said receiving device comprises a control unit connected to a television, said control unit generating a control signal for said amplifying means.

38. The system of claim 37, wherein said control signal is based on a channel being tuned by said television.

39. The system of claim 34, wherein said control means further comprise means for providing power for said amplifying means.

40. The system of claim 39, wherein said control means comprise a control line that carries a control signal which is a direct current (DC) voltage signal comprising a voltage to power said amplifier circuit plus an additional voltage that varies to indicate a desired gain of said amplifying means.

41. The system of claim 34, wherein said amplifying means comprise a voltage controlled amplifier, said control means further comprising means for providing power and a voltage controlling a gain of said amplifier.

42. The system of claim 34, wherein said control means further comprise means for selectively attenuating a signal from said antenna before providing that signal to an amplifier of said amplifying means to control an effective gain of said amplifier.

43. The system of claim 42, wherein said means for attenuating comprise a voltage-controlled attenuator.

44. The system of claim 34, wherein:

 said exterior television antenna comprises two or more antenna elements differently oriented; and

 said control means further comprise means for selectively providing signals from said antenna elements to an amplifier of said amplifying means in response to a control signal to adjust a polarity of said antenna.

45. The system of claim 34, wherein:

 said exterior television antenna comprises two or more antenna elements differently oriented;

 said amplifying means further comprise two or more amplifiers connected to respective antenna elements; and

 said control means further comprise means for independently controlling said amplifiers to selectively adjust a gain of each of said amplifiers to adjust a polarity of said antenna.

46. The system of claim 34, further comprising means for selectively rotating said antenna.

47. A system for controlling a television antenna comprising:

 an amplifier circuit mounted with said television antenna and connected to said television antenna, wherein said television antenna is connected to, but located away from, a receiving device; and

 a control line connected to said amplifier circuit for controlling a gain of said amplifier circuit based on a channel being tuned by said receiving device.

48. The system of claim 47, wherein said control line is connected to a television which outputs a control signal on said control line to control said amplifier circuit.

49. The system of claim 47, wherein said control line is connected to a control unit that is connected to a television.

50. The system of claim 49, wherein said control unit outputs said control signal based on a channel being tuned by said television.

51. The system of claim 47, wherein said control line also provides power for said amplifier circuit.

52. The system of claim 51, wherein said control line carries a control signal which is a direct current (DC) voltage signal comprising a voltage to power said amplifier circuit plus an additional voltage that varies to indicate a desired gain of said amplifier circuit.

53. The system of claim 47, further comprising a signal line connected to said amplifier circuit for transmitting an amplified signal from said antenna to said receiving device;

wherein said control line is sheathed with said signal line.

54. The system of claim 47, wherein said amplifier circuit comprises a voltage controlled amplifier, wherein said amplifier receives power and a voltage controlling a gain of said amplifier over said control line.

55. The system of claim 47, wherein said amplifier circuit comprises:
an attenuator connected to and controlled by said control line; and
an amplifier,
wherein said attenuator selectively attenuates a signal from said antenna before providing that signal to said amplifier.

56. The system of claim 55, wherein said attenuator is voltage controlled.

57. The system of claim 56, wherein said control line also provides power for said amplifier circuit.

58. The system of claim 47, wherein:
said television antenna comprises two or more antenna elements differently oriented;
said amplifier circuit further comprising a controller connected to said control line and an amplifier; and
said controller selectively provides signals from said antenna elements to said amplifier in response to a control signal on said control line to adjust a polarity of said antenna.

59. The system of claim 58, wherein said controller also selectively attenuates signals from said antenna elements based on said control signal to adjust an effective gain of said amplifier.

60. The system of claim 47, wherein:
said television antenna comprises two or more antenna elements differently oriented;
said amplifier circuit further comprises two or more amplifiers connected to respective antenna elements; and
said control line provides independent control signals to said amplifiers to selectively adjust a gain of each of said amplifiers to adjust a polarity of said antenna.

61. The system of claim 60, wherein said amplifier circuit further comprises a summer for combining signals from said two or more amplifiers.

62. The system of claim 47, further comprising a motor for selectively rotating said antenna.